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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,480	05/10/2005	Thomas Durbaum	DE02 0261 US	7009
65913	7590	05/29/2009	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			PHAM, EMILY P	
			ART UNIT	PAPER NUMBER
			2838	
			NOTIFICATION DATE	DELIVERY MODE
			05/29/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,480	<b>Applicant(s)</b> DURBAUM ET AL.	
	<b>Examiner</b> Emily Pham	<b>Art Unit</b> 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rozsypal (USP 6,426,612).

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1 and 5-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Rozsypal (USP 6,426,612).

Regarding independent claim 1: Rozsypal (**FIG 1; col. 4, line 21 – col. 5, line 3**) discloses power converter comprising: a current path that includes an inductor **(16)** having an input for receiving energy from a power supply **(Vbatt)** and an output capacitor **(26)** for providing an output voltage **(Vout)**; an additional current path **(path between output of inductor 16 and Ground via transistor 24)**, beginning at an output of the inductor **(103)** and including a circuit element **(24)** configured to open and close **(col. 4, lines 27-48)** the additional current path **(path between output of inductor 16 and Ground via transistor 24)**, said additional current path **(path between output of**

Art Unit: 2838

**inductor 16 and Ground via transistor 24)** formed such that a current flowing through said additional current path **(path between output of inductor 16 and Ground via transistor 24)** reaches basically immediately a desired value, when said additional current path **(path between output of inductor 16 and Ground via transistor 24)** is opened; and a feedback circuit **(FB, 12, 14, 18, 32, 34, 20)** configured to control the circuit element **(24)** to open said additional current path **(path between output of inductor 16 and Ground via transistor 24)**, when said output voltage **(Vout)** across said output capacitor **(26)** reaches a predetermined maximum value **(col. 4, lines 27-48, maximum predetermined output voltage is equal to Vbatt)**, wherein the inductor **(16)** provides the energy from the power supply **(Vbatt)** to a parallel arrangement of the output capacitor **(26)** and the additional current path **(path between output of inductor 16 and Ground via transistor 24)**.

Regarding claims 10-18: Rozsypal **(FIG 1; whole document)** discloses an apparatus at its normal operation performing the steps of method recited in claims 10-18.

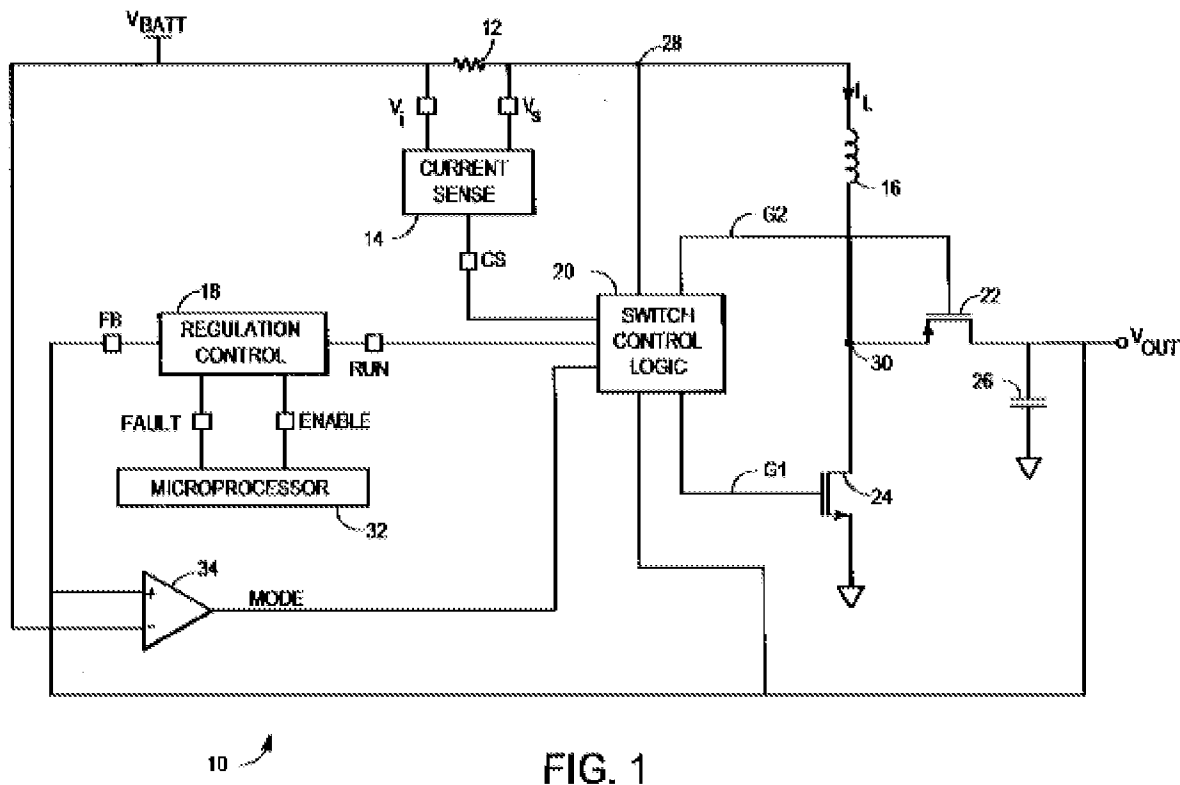


FIG. 1

Regarding claim 5: Rozsypal (FIG 1; whole document) discloses power converter, wherein said feedback circuit (FB, 12, 14, 18, 32, 34, 20) configured to control the circuit element (24) to open said additional current path (path between output of inductor 16 and Ground via transistor 24) for a predetermined time (timer 62; claims 4 and 7; col. 6, line 46 – col. 7, line 42).

Regarding claim 6: Rozsypal (FIG 1; whole document) discloses power converter, wherein said feedback circuit (FB, 12, 14, 18, 32, 34, 20) is configured to control the circuit element (24) to close additional current path (path between output of inductor 16 and Ground via transistor 24) when a second predetermined output

voltage is reached (**col. 4, line 21 – col. 5, line 3; max current of inductor 26 provides second predetermined output voltage**).

Regarding claim 7: Rozsypal (**FIG 1; whole document**) discloses power converter, wherein said feedback circuit (**FB, 12, 14, 18, 32, 34, 20**) is configured to control the circuit element (**24**) to open and close (**col. 4, line 21 – col. 5, line 3**) the additional current path (**path between output of inductor 16 and Ground via transistor 24**) based on said output voltage (**V<sub>out</sub>**).

Regarding claim 8: Rozsypal (**FIG 1; whole document**) discloses power converter, wherein said feedback circuit (**FB, 12, 14, 18, 32, 34, 20**) is configured to control the circuit element (**24**) to open and close additional current path (**path between output of inductor 16 and Ground via transistor 24**) based on a current through said inductor (**16; col. 4, line 21 – col. 5, line 3**).

Regarding claim 9: Rozsypal (**FIG 1; whole document**) discloses power converter, wherein said power converter is one out of a group of a buck converter, a boost converter and a buck/boost converter (**Abstract**).

Regarding claims 10-14: Rozsypal (**FIG 1; whole document**) discloses the apparatus at its normal operation performing the steps of method disclosed in claims 10-14.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2838

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rozsypal (USP 6,426,612) in view of Irvine et al (USP 6,225,859).

Rozsypal discloses claimed invention except for current path comprising a controllable current source. Irvine et al (**FIG 1**) teaches the use of current path comprising a controllable current source (**1c**) is well known in the art. Since Rozsypal and Irvine et al are both from the same field of endeavor, the purpose disclosed by Irvine et al would have been recognized in the pertinent art of Rozsypal. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize current path comprising a controllable current source in the voltage converter of Rozsypal, as taught by Irvine et al, for the purpose of providing additional shunting action.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rozsypal (USP 6,426,612) in view of Schneiderman (USP 4,301,801).

Rozsypal discloses claimed invention except for current path as a low impedance path comprising a resistor. Schneiderman (**FIG 2; col. 4, lines 5-8**) teaches the use of current path as a low impedance path comprising a resistor is well known in the art. Since Rozsypal and Schneiderman are both from the same field of endeavor, the purpose disclosed by Schneiderman would have been recognized in the pertinent art of Rozsypal. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize low impedance path

Art Unit: 2838

comprising a resistor in the voltage converter of Rozsypal, as taught by Schneiderman, for the purpose of providing additional current in the direction of ground.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Pham whose telephone number is (571)270-3046. The examiner can normally be reached on Mon-Thu (7:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash Gandhi can be reached on (571) 272 - 3740. The fax phone



Art Unit: 2838

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jessica Han/  
Primary Examiner, Art Unit 2838

EP